



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

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REGIONAL
ADMINISTRATOR'S
DIVISION

October 20, 2021

Kasey Prestwich, Project Manager
Bureau of Land Management
Shoshone Field Office
400 West F Street
Shoshone, Idaho 83352

Dear Mr. Prestwich:

The U.S. Environmental Protection Agency has reviewed the Bureau of Land Management's (BLM) Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) for Lava Ridge Wind Project in Jerome, Lincoln, and Minidoka Counties, Idaho (EPA Region 10 Project Number 20-0034-BLM). Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) and our NEPA review authority under Section 309 of the Clean Air Act.

The NOI states that BLM will analyze the potential environmental impacts associated with a right-of-way authorization for the Magic Valley Energy, LLC (Applicant) to use federal lands for constructing, operating, maintaining, and decommissioning the Lava Ridge Wind Project. The project infrastructure will include up to 400 wind energy generating turbines; seven new substations; 250 miles combined of collector and transmission lines; 381 miles of access roads; 47 miles of temporary crane walk paths; and other ancillary facilities.

All components of the project will be located within a series of corridors up to half mile wide and cover nearly 76,000 acres of public and state lands. The project's planned 500 kV transmission line will interconnect at the Idaho Power Midpoint or at another future location inside the right-of-way corridor (e.g., future Southwest Intertie Project – Northern Portion). When complete in 2024, the wind power facility will generate up to 1,000 megawatts or more and help to meet current and future energy demands in Idaho and surrounding regions.

EPA supports the overall purpose of the proposed project to develop alternative and environmentally sustainable sources of energy such as wind power. It will be important for the proposed project to be designed, sited, operated, and maintained in environmentally sensitive manner. EPA encourages BLM to develop a NEPA analysis that fully evaluates and compares project alternatives and comprehensively assesses direct, indirect, and cumulative impacts. EPA notes that the NOI has identified a tentative list of resources/issues to be addressed. The enclosed scoping comments highlight issues that are important to consider in the NEPA analysis for the project.

Thank you for the opportunity to provide comments at this stage of this project EIS development. If you have questions about our comments, please contact Theo Mbabaliye of my staff at (206) 553-6322 or mbabaliye.theogene@epa.gov, or you may contact me at (206) 553-1774 or chu.rebecca@epa.gov.

Sincerely,

Rebecca A. Chu, Chief
Policy and Environmental Review Branch

U.S. Environmental Protection Agency Detailed Scoping Comments on the Lava Ridge Wind Energy Project Jerome, Lincoln, and Minidoka Counties, ID

Purpose and Need

EPA recommends that the Draft Environmental Impact Statement (DEIS) clearly identify the underlying purpose and need for the proposed project. When formulating the need, identify and describe the underlying problem, deficiency, or opportunity that the action is meant to address. EPA also encourages BLM to include in the DEIS:

- A discussion on the proposed project in the context of the larger energy market that the project will serve;
- Potential purchasers of the power produced;
- Data showing how the project will assist the state, as well as other potential purchasers of the energy, in meeting their renewable energy portfolio standards and goals; and
- A description of criteria used to determine the minimum project size that will be considered feasible.

Alternatives Analysis

EPA recommends that the DEIS include a reasonable range of alternatives that meet the stated purpose and need for the project which are responsive to the issues identified during the scoping process. A reasonable range of alternatives will include options for avoiding environmental impacts, while the alternatives analysis will describe the approach used to identify environmentally sensitive areas and the process used to designate them in terms of sensitivity. The DEIS will also need to clearly describe the rationale used to determine whether impacts of an alternative are significant or not. Reasonable alternatives could include, and are not necessarily limited to: alternative locations, configurations, and types (size, height, and power) of wind turbine generators (WTGs), alternative transmission options, as well as alternative storage technologies.

The CEQ regulations for implementing NEPA state that agencies shall include appropriate mitigation measures not already included in the proposed action or alternatives (40 CFR 1502.14(f)). The DEIS will also need to include a discussion of the reasons for the elimination of other alternatives considered and not evaluated in detail. Lastly, identify the preferred alternative in the DEIS, if known.

Environmental Effects

EPA recommends that the DEIS for this project include information on the project's potential impacts on natural resources in the analysis area and identify any necessary measures to avoid, minimize and mitigate those effects. This will involve the delineation and description of the affected environment, indication of the impacted resources, the nature of the impacts, and proposed mitigation measures to reduce those impacts. Providing adequate information in the DEIS on the following topics will be especially helpful for decision-makers and the public.

Water resources and impacts

Section 303(d) of the Clean Water Act (CWA) requires the state of Idaho and Tribes with the EPA-approved water quality standards to identify water bodies that do not meet water quality standards and

develop water quality restoration plans to meet established water quality criteria and associated beneficial uses. Because of that, EPA recommends the DEIS include the following information:

- Impacted waters, the nature of the impacts, and specific pollutants likely to affect those waters;
- Water bodies potentially affected by the project that are on the most recent EPA-approved 303(d) list;
- Existing restoration and enhancement efforts for those waters and how the proposed project will coordinate with on-going protection efforts, as well as any mitigation measures implemented to avoid further degradation of impaired waters;
- How the project will meet the antidegradation provisions of the CWA. The provisions prohibit degrading water quality within water bodies that are currently meeting water quality standards;
- Cumulative effects from this and other projects on the hydrologic conditions of the analysis area and vicinity, including reasonably foreseeable direct, indirect, and cumulative impacts to groundwater and surface water resources. For groundwater, identify potentially affected groundwater basins and any potential for subsidence, and analyze impacts to springs or other open water bodies and biological resources;
- Whether the project has applied for a construction storm water discharge permit or National Pollutant Discharge Elimination System permit for discharges to surface waters of the United States since it will disturb a land area of 5,400 acres or more during its construction. The DEIS will need to document the project's consistency with applicable storm water permitting requirements and discuss specific mitigation measures that may be necessary or beneficial in reducing adverse impacts to water quality and aquatic resources due to the discharges; and
- Potential contamination of drinking water sources that may result from the project, the contaminants of concern, and measures that will be taken to protect drinking water sources for communities in and adjacent to the planning area.

Aquatic resources and impacts

Because the proposed action could impact waters of the United States, EPA recommends the DEIS include the following information:

- Description of all Waters of the U.S., including wetlands that could be affected by the project alternatives;
- Maps showing waterbody locations and resources the project could impact;
- Acreages and channel lengths, habitat types, values, and functions of these waters;
- Potential discharge of dredged or fill materials into surface waters of the U.S. and the most current information related to the status of authorization by the U.S. Army Corps of Engineers;
- Mitigation plans, including compensatory mitigation required under the CWA, to reduce impacts to surface Waters of the U.S.; and
- Floodplain impacts and actions to be taken to minimize the impacts. Activities affecting floodplains are regulated under the CWA §404 and Executive Orders 11988 and 13690.^{1,2}

¹ <https://www.epa.gov/cwa-404/floodplain-management-executive-order-11988>

² <https://www.govinfo.gov/content/pkg/FR-2015-02-04/pdf/2015-02379.pdf>

Impacts from Access Roads, Staging Areas and Yards, and Transmission Infrastructure

Because construction of the project will involve development of access roads, establishment of staging yards, as well as power transmission infrastructure, EPA recommends that the DEIS for the project:

- Describe all areas of the project footprint that will be disturbed for the project to be operational.
 - Quantify temporary and permanent impacts anticipated, including acreages and level of disturbance;
 - Amount of cut and fill needed and soil to be moved; and
 - Identify how fill will be stabilized.
- Fully disclose and analyze the project's potential impacts to soil resources, including:
 - How much soil will be disturbed and stockpiled under each alternative and how much soil will be needed for site reclamation; and
 - Discuss soil conservation and stabilization measures that will be required for the proposed project.
- Describe current conditions, and best management practices that will be followed to reduce the likelihood of introduction and spread of invasive species because of these activities; and
- Indicate how roads in the analysis area currently impact resources, including water quality, and describe the change in road miles and density that will occur due to the proposed project.

Solid waste, hazardous materials, and other waste management

As construction, operation and maintenance of the proposed project may result in direct, indirect, and cumulative impacts due to use of hazardous and non-hazardous materials, EPA recommends that the project DEIS address these impacts. Hazardous materials such as compressed gas, petroleum products, and others may be used and/or stored in the community. Although proper management is presumed to be safe, concerns remain about the possibility of accidents resulting in the release of toxic materials to the environment. Therefore, EPA recommends that the DEIS document for the project:

- Describe measures that will be taken to minimize the chances of accidental spills or release of pollutants in the environment, and emergency response measures that will be taken should an accident occur;
- Address the applicability of state and federal hazardous materials, pollution prevention, and solid waste requirements, and appropriate mitigation measures to prevent and minimize the generation of solid and hazardous materials; and
- Assess the need to prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) and provide information addressing this SPCC using resources on EPA web site.³

Air Quality Impacts

Because the proposed action may result in air quality impacts, EPA recommends that the DEIS for the project include the following information:

³ <https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations>

- A detailed discussion of ambient air conditions (baseline or existing conditions), National Ambient Air Quality Standards (NAAQS) and criteria pollutant non-attainment areas in the analysis area and vicinity, if applicable;
- Estimated emissions of criteria pollutants for the analysis area and discuss the timeframe for release of these emissions from construction through the lifespan of the proposed project. For estimation of emissions, it would be helpful to specify all emission sources and quantify related emissions;
- A description of how BLM will ensure that the proposed alternatives comply with federal conformity requirements. Demonstrate conformity for all pollutants for which relevant air basins are in nonattainment or maintenance status, and whose construction or operational emissions could exceed the applicable *de minimis* levels;
- About pollutants from mobile sources, stationary sources, and ground disturbance;
- A Construction Emissions Mitigation Plan that identifies actions to reduce diesel particulate, carbon monoxide, hydrocarbons, and oxides of nitrogen (NOx);
- Potential effects from air pollutants- including air toxics- to workers, ground crews, nearby residents, businesses, and any sensitive receptor locations, such as, schools, medical facilities, senior centers and residences, daycare centers, outdoor recreation areas (e.g., parks); and
- Mitigation measures to minimize the proposed project impacts to air quality.

Potential Noise Impacts

Regarding potential noise impacts to receptors and biological resources, EPA recommends that the NEPA analysis:

- Evaluate decibel (dB) levels, the effects of noise levels on a variety of species, and effects on sensitive receptors, residences, recreational users, and property values. It is important to describe the timing, duration, and reoccurrence of noise as they may occur over multiple construction seasons;
- Identify in the noise impact assessment the significance threshold utilized in the impact assessment methodology. EPA identified a goal of 55 A-weighted decibels (dBA) for outdoor residential areas to fully protect the public health and welfare.⁴ For low-frequency sounds often associated with wind turbines, EPA encourages BLM to consider using C-weighted and/or A-weighted metrics;
- Compare noise impacts among alternatives and quantify the number of sensitive receptors that will be exposed for each alternative. This information may be useful to decision-makers and reveal opportunities to minimize impacts to the most affected receptors during micro-siting of WTGs; and
- Indicate mitigation measures which will lessen or avoid adverse noise impacts.

The project may affect noise levels, resulting in potential health impacts. There is increasing evidence that noise impacts can have non-auditory health effects. A 2007 review article that summarizes studies from the National Library of Medicine database on the adverse health effects of noise notes that long-term physical health effects have been linked to noise effects related to sleep disturbances, stress, and

⁴<https://www.nonoise.org/library/levels74/levels74.htm>

increased blood pressure, and can increase cardiovascular disease risk.⁵ These effects begin to be seen with long-term daily exposure to noise levels above 65 dB or with acute exposure to noise above 80-85 dB.⁶ The World Health Organization recommends that, where noise is continuous, the equivalent sound pressure level should not exceed 30 dBA indoors if negative effects on sleep are to be avoided.⁷ When the noise is composed of a large proportion of low-frequency sounds, a still lower guideline value is recommended because low frequency noise can disturb rest and sleep even at low sound pressure levels. It is also relevant to mention that recent scientific studies have shown that some migratory birds will avoid excessively noisy areas during migration.⁸ This will need to be carefully considered since Idaho hosts many threatened and endangered migratory bird populations along their migration routes.

Potential impacts to protected species and their habitats

As the proposed project may impact federally and state protected species and their habitats, EPA recommends that the NEPA analysis:

- Identify the species in the project area and vicinity and their critical habitats;
- Describe impacts the project will have on these resources; and
- Indicate how the project will meet all requirements under the Endangered Species Act (ESA), including consultation with the US Fish and Wildlife Service under Section 7 of the ESA and, if applicable, the National Marine Fisheries Service. It will also be important to coordinate with the Idaho Department of Fish and Game to define practices that will be protective of biota and habitat during implementation of the project.

Birds and Bats

Wind energy and related power transmission infrastructure projects commonly result in mortality of birds and bats due to collisions with rotor blades. Therefore, EPA recommends that the DEIS for this project:

- Locate wind turbine generators in areas that, if possible, avoid:
 - Areas supporting a high density of wintering or migratory birds;
 - Areas with a high level of raptor activity;
 - Populations of less abundant species which may be sensitive to increased mortality due to collision. Also consider reducing perching and nesting opportunities;
- Describe the current quality and capacity of habitat and its use by bats and avian populations in the proposed project area, how the proposed project will meet requirements under the ESA, the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act;

⁵Goines, Lisa RN and Hagler, Louis MD. 2007. "Noise Pollution: A Modern Plague", *Southern Medical Journal*: Volume 100 - Issue 3 - pp 287-294

⁶ Ibid, p. 290

⁷ World Health Organization. "Burden of Disease from Environmental Noise." European Commission, 2007, www.who.int/quantifying_ehimpacts/publications/e94888.pdf.

⁸ Oded Berger-Tal, Bob B. M. Wong, Ulrika Candolin, Jesse Barber. *What evidence exists on the effects of anthropogenic noise on acoustic communication in animals? A systematic map protocol*. 2019. 10.1186/s13750-019-0165-3. Environmental Evidence.

- Incorporate into the project planning the 2012 USFWS guidelines and recommendations on how to avoid and minimize impacts of land-based wind farms on wildlife and habitat.⁹ If the Applicant plans to obtain an Eagle Take Permit from the USFWS, include the status of that permit consultation process in the DEIS;
- Identify measures to take to avoid, minimize, and mitigate the project impacts to birds and bats; and
- Consult the following resources for more information on avian impacts and best management practices:
 - *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*;¹⁰
 - *Reducing Avian Collisions With Power Lines: The State of the Art in 2012*;¹¹
 - *Eagle Risk Framework: A Practical Approach for Power Lines*;¹² and
 - *Wildlife Impacts of Wind Energy*.¹³

Invasive Species

EPA recommends including in the DEIS an invasive plant management plan to monitor and control detrimental vegetation and transport of invasive species during construction; and discuss the potential for the new access roads to introduce invasive species into new areas. Executive Order 13112, *Invasive Species* mandates that federal agencies take actions to prevent the introduction of invasive species, provide for their control, and minimize the economic, ecological, and human health impacts that invasive species cause. Executive Order 13112 also calls for the restoration of native plants and tree species.

Cumulative effects

The proposed project will be constructed in an area where other projects have, are, or will occur in foreseeable future and may have potential effects to resources therein, such as migratory bird/bat species. Therefore, EPA recommends the DEIS assesses cumulative impacts of, for example, potential bird/bat mortality that could result from the incremental impact of the Proposed Action and action alternatives when combined with past, present, or reasonably foreseeable activities, including other future wind activities. EPA guidance for *Consideration of Cumulative Impacts in EPA Review of NEPA Documents* is a reference framework available to BLM for the planned NEPA analysis to technically assess those effects.¹⁴ EPA recommends the analysis include an assessment of cumulative impacts on the following five key areas:

1. Resources, if any, that are being cumulatively impacted;
2. Appropriate geographic area and the time over which the effects have occurred and will occur;
3. All past, present, and reasonably foreseeable future actions that have affected, are affecting, or will affect resources of concern;

⁹ https://www.fws.gov/ecological-services/es-library/pdfs/WEG_final.pdf

¹⁰ <https://www.nrc.gov/docs/ML1224/ML12243A391.pdf>

¹¹ http://www.aplic.org/uploads/files/15518/Reducing_Avian_Collisions_2012watermarkLR.pdf

¹² <https://www.aplic.org/uploads/files/15799/APLICEagleRISKFramework-APracticalApproachforPowerLines-December132018FinalwAppendixPUBLIC.pdf>

¹³ <https://windexchange.energy.gov/projects/wildlife>

¹⁴ <https://www.epa.gov/sites/default/files/2014-08/documents/cumulative.pdf>

4. A benchmark or baseline of existing environmental conditions; and
5. Scientifically defensible threshold levels.

Climate Change, Resilience and Adaptation

In characterizing the affected environment and environmental consequences of the proposed action, EPA recommends that the DEIS for the proposed project:

- Include existing and reasonably foreseeable environmental trends related to a changing climate;
- Discuss reasonably foreseeable effects that a currently changing climate will have on the proposed project and the project area, including its infrastructure. This could help inform the development of measures to improve the climate resilience of the proposed project. If projected climate-related changes could notably stress the affected environment or exacerbate the environmental impacts of the project, these impacts should also be considered as part of the NEPA analysis. For example, adaptation strategies could include an extreme weather event analysis to minimize or prevent a disruption of power or loss of energy to consumers from natural disaster events. An increase in the magnitude or frequency of extreme events can severely challenge utility systems that are not designed to withstand intense events. Extreme event analyses or modeling can help develop a better understanding of the risks and consequences associated with these types of events;
- Estimate the direct and indirect greenhouse gas emissions that will result from proposed construction, operations, and decommissioning activities. Estimated emissions can serve as a useful proxy for assessing relative effects, comparing alternatives and supporting the need for practicable mitigation to reduce greenhouse gas emissions;
- Indicate expected sulfur hexafluoride (SF₆) emissions usually associated with gas-insulated switchgears on the WTGs and measures to be taken to minimize these emissions. One action that could be taken is for BLM to require adoption of SF₆-free switchgears (“clean-air”) or other equipment. If SF₆-free switchgears are determined to be technically infeasible, or are unavailable, the Applicant could also limit SF₆ leaks to the extent practicable or required by state or federal regulations. SF₆ is the most potent known greenhouse gas, with the potential to trap infrared radiation approximately 23,000 times more effectively than carbon dioxide. SF₆ is also a very stable chemical, with an atmospheric lifetime of 3,200 years. Thus, a relatively small amount of SF₆ can have a significant impact on global climate change; and
- Highlight the climate change benefits/avoided greenhouse gas emissions.

Concerning climate resilience and adaptation, EPA encourages BLM describe available mechanisms in its licenses and other authorizations to cover the costs of safety measures and project operations and decommissioning including specific adaptive management plans to contend with changing climatic conditions that may affect operations.

Coordination with Land Use Planning and Special Land Use Designations

EPA recommends that the DEIS for this project:

- Discuss how the proposed action will support or conflict with the objectives of other federal, state, tribal or local land use plans, policies and controls in the analysis area and vicinity;
- Address existing land use constraints in the project area, including power lines and other utility right-of-ways, floodplains, etc. and impacts on the Applicant’s ability to obtain construction and operating permits and licenses for this project;

- Consider and disclose the effects of the project on wildfire risk and fire management in the area including:
 - Potential effects on the frequency and severity of fires in the analysis area;
 - Need to suppress fires to protect project infrastructure due to potential influence on fire management decisions; and
 - Other hazards that may occur and identify what measures are available to prevent such hazards as well as the resources that are available to respond to them.

The term “land use plans” includes all types of formally adopted documents for land use planning, conservation, zoning, and related regulatory requirements. Proposed plans not yet developed should also be addressed if they have been formally proposed by the appropriate government body in a written form.¹⁵ EPA notes there are sensitive resources in the area with management plans that may include restrictions or coordination requirements which may impact the project. They include the Minidoka National Historic Site, Wilson Butte Cave, Craters of the Moon National Monument and Preserve, Snake River Plain Aquifer, and others.

Coordination with tribal governments and communities

EPA recommends the EIS for this project describe the process and outcomes of government-to-government consultation between BLM and all tribal governments and communities that will be affected by the project; issues that were raised, if any; and how those issues will be addressed. See Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*.¹⁶ As a general resource, you may also consult the *Best Practices in Historic Preservation* document to address this topic.¹⁷

Environmental Justice and Public Participation

If there are populations with environmental justice concerns around or near the analysis area, then the DEIS will need to address the potential for disproportionate adverse impacts to these communities, consistent with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.¹⁸ You may also consult Executive Order EPA’s Environmental Justice Screening and Mapping Tool, or EJSCREEN 17, is a starting point in screening communities that may have Environmental Justice concerns within the project area.¹⁹ For more information on effective public participation in the NEPA process, please also consult the following resources:

- *Promising Practices for EJ Methodologies in NEPA Reviews*;²⁰
- *The Citizen's Guide to the National Environmental Policy Act*;²¹
- *Environmental Justice: Guidance Under the National Environmental Policy Act*;²² and
- *Community Guide to Environmental Justice and NEPA Methods*.²³

¹⁵ CEQ's Forty Questions, #23b at <https://www.energy.gov/sites/default/files/2018/06/f53/G-CEQ-40Questions.pdf>

¹⁶ https://www.energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-EO13175tribgovt.pdf

¹⁷ http://www.nathpo.org/PDF/Tribal_Consultation.pdf

¹⁸ <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>

¹⁹ <https://www.epa.gov/ejscreen>

²⁰ https://www.epa.gov/sites/production/files/2016-08/documents/nepa_promising_practices_document_2016.pdf

²¹ https://ceq.doe.gov/get-involved/citizens_guide_to_nepa.html

²² <https://ceq.doe.gov/docs/ceq-regulations-and-guidance/regs/ej/justice.pdf>

²³ <https://www.energy.gov/sites/prod/files/2019/05/f63/NEPA%20Community%20Guide%202019.pdf>

Permits and Authorizations

As the project will likely require a variety of other authorizations and permits and not just the right-of-way grant from BLM, EPA recommends that the DEIS include a list of all permits/authorizations that the project facilities will need, what activity and/or facility is regulated by the permit or authorization, entities that will issue each permit and authorization, when each will expire, and conditions to assure protection of human health and the environment. Such information, presented in a consolidated fashion, will assist agency decision-makers and the public in evaluating the proposed project's impacts and mitigation required to address those impacts.

Monitoring and adaptive management

As the proposed project has the potential to impact many environmental resources for an extended period, EPA recommends that the project be designed to include an environmental inspection and mitigation monitoring program to ensure compliance with all mitigation measures and assess their effectiveness. The DEIS document will need to describe the monitoring program and how it will be used as an effective feedback mechanism so that any needed adjustments can be made to the project to meet environmental objectives throughout its lifespan. For example, there could be a plan to monitor birds and bats strikes and take corrective action if the strikes pose risks to declining bird species populations of the area.